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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,845	02/27/2001	Christoph Herrmann	PHD 99,088	5206
24737	7590	08/03/2004	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS			AHN, SAM K	
P.O. BOX 3001			ART UNIT	
BRIARCLIFF MANOR, NY 10510			PAPER NUMBER	
			2637	8

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/763,845

Applicant(s)

HERRMANN ET AL.

Examiner

Sam K. Ahn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment, 5/5/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 5/5/04 have been fully considered but they are not persuasive. On page 18 of the amendment, the applicants argue that the random access bursts, taught by Kanterakis, comprising RS-preamble signals, RS power-control signals, and RS-pilot signals, are not qualified as signaling sequences, which are defined in the specification of this application as a pseudo-random square-wave signal, where claim 17 further recites that the signaling sequence is operable as a Gold sequence. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, Kanterakis teaches wherein the random access bursts are spread by an orthogonal Gold code, as recited in claim 17. (note col.1, lines 17-23) Kanterakis also teaches a terminal (see Fig.4) transmitting a first signaling sequence by multiplying the output signal by a spreading sequence generator (427), which generates a pseudo random square-wave signal. Therefore, access bursts transmitted as a first signaling sequence by the terminal, multiplied by the spreading sequence generator (427), is a signaling sequence.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 21-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 21-23 depend on claim 13, which already has been cancelled.

Assuming claims 21-23 depend on claim 14,

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 14-17, 21-28 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanterakis (cited previously) in view of Suzuki et al. (Suzuki).

Regarding claims 14, 24, 26 and 33, Kanterakis teaches a method and apparatus of a wireless network comprising a base station and a plurality of terminals (see Fig.1) for exchanging user data and control data (see Fig.7) over a contention channel wherein Kanterakis teaches a common-packet channel is a contention based, therefore teaches a contention channel. (note col.2, lines 56-63) Further, Kanterakis teaches in the base station a device for correlating by matched filter (315 in Fig.3) a signaling sequence transmitted by at least one terminal to indicate the wish to use a contention channel (access-burst signal,

note col.5, lines 63-67) and for detecting the pulse evolved from a received and correlated signaling sequence (see Fig.6 and note col.6, lines 37-46). And further, in that the base station, after the detection of the signaling sequence (access-burst signal), is provided for transmitting a provision message (ACK signal, note col.6, lines 47-52) over a contention channel (common-synchronization channel) to be used by the assigned terminals.

However, Kanterakis does not teach wherein the terminals are assigned to the base station. Suzuki teaches correlation of received signaling sequence by an assigned terminal, assigned to a host terminal operating in a wireless network environment. (see Fig.12 and note col.2, line 25- col.4, line 35 and col.10, lines 44-61) Therefore, it would have been obvious to one skilled in the art at the time of the invention to implement Kanterakis' teaching by assigning the terminals to be assigned to a base station for the purpose of supporting a wireless network environment where the terminals are assigned to the host terminal functioning as a base station.

Regarding claims 15 and 27, Kanterakis in view of Suzuki teach all subject matter claimed, as applied to claim 14 or 26. Kanterakis further teaches a terminal provided for transmitting a signaling sequence during a certain time slot (note col.11, lines 40-57) of a transmitting-end reference frame, and after receiving a provision message (ACK signal) from the base station, for

transmitting a terminal identification data packets over at least one contention channel. (note col.9, lines 31-45)

Regarding claims 16 and 25, Kanterakis in view of Suzuki teach all subject matter claimed, as applied to claim 14 or 24. Kanterakis further teaches correlating the received signal (by a matched filter, 315) to generate the pulse, and further detecting the peak evolved, (note col.6, lines 1-19) wherein the base station detects the power level of the signal to determine signaling sequence comprising pilot signals.

Regarding claims 17 and 28, Kanterakis in view of Suzuki teach all subject matter claimed, as applied to claim 14 or 26. Kanterakis further teaches a terminal provided for transmitting a Gold, Kasami or Golay sequence (col.8, lines 24-40) as a signaling sequence during a specific time slot of a transmitting-end reference frame. (note col.11, lines 40-57)

Regarding claim 21 and 32, Kanterakis teaches all subject matter claimed, as applied to claim 14 or 26. Kanterakis further teaches a terminal provided for transmitting a signaling sequence during one of various determined time slots (note col.11, lines 40-57) of a transmitting-end reference frame, and after receiving a provision message (ACK signal) from the base station, for transmitting a terminal identification data packets over at least one contention

channel. (note col.9, lines 31-45) Furthermore, it is inherent that the terminal transmits the terminal identification only when the provision message indicates the respective time slot. As previously explained, the provision message includes the time slot information and therefore, transmitting the terminal identification would only occur after the reception of the provision message.

Regarding claim 22, Kanterakis teaches all subject matter claimed, as applied to claim 14. Kanterakis also teaches transmission of a signaling sequence transmitted by plurality of terminals communicating with a base station. (note col.1, lines 30-43) Furthermore, it is inherent that the signaling sequence transmitted by the terminal is part of a multiplicity of signaling sequence to be used in a radio cell, since there are more than one terminals communicating with the base station requesting for a contention channel each using a different signaling sequence.

Regarding claim 23, Kanterakis teaches all subject matter claimed, as applied to claim 14. Kanterakis further teaches a terminal selecting a signaling sequence to request for one or a plurality of contention channel (see Fig.4, and note col.6, lines 25-35) and further, the data rates are different from the base station. (note col.9, lines 54-61 wherein the terminal informs the base station of the data rate, which may be different from the rate of base station. (note col.9, lines 54-61)

4. Claims 18-20 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanterakis (cited previously) in view of Suzuki et al. (Suzuki) and Jung et al. (cited previously).

Regarding claims 18,19,29 and 30, Kanterakis in view of Suzuki teach all subject matter claimed, as applied to claim 14 or 26. Kanterakis teaches retransmission of signaling sequence, however, does not teach retransmission within a predefined period of time when no acknowledgement of the reception of the signaling sequence. Jung teaches, in the same field of endeavor, communication between base station and terminal over a contention channel wherein, prior to receiving the provision message, the terminal retransmits signaling sequence within a predefined period of time when no acknowledgement of the reception of the signaling sequence. (note col.1, lines 37-46) Therefore, it would have been obvious to one skilled in the art at the time of invention to implement Jung's teaching of retransmission when no acknowledgement has been received since the terminal cannot wait for too long period of time, nor could terminal retransmit when base station has already received the signaling sequence, as it may be an unnecessary transmission. For the purpose of designing an efficient system, one skilled in the art may implement as such wherein the terminal waits for a predefined period of time before retransmitting.

Regarding claims 20 and 31, Kanterakis in view of Suzuki teach all subject matter claimed, as applied to claim 14 or 26. Kanterakis further teaches

increasing energy or power level for transmission. (note col.6, lines 1-19)

However, Kanterakis does not explicitly disclose increase of transmission energy or power level to a maximum level within a predefined period of time when no acknowledgement of the reception of the signaling sequence has been received from the base station. Jung teaches this limitation. (note col.2, lines 4-10)

Therefore, it would have been obvious to one skilled in the art at the time of invention to implement as such for the purpose of properly transmitting the signaling sequence to the base station in situations where the terminal may be distant from the base station wherein increase of power level is needed in order for the base station to receive the sequence and further resulting in reception of acknowledgement of reception of signaling sequence by the terminal.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Sam Ahn** whose telephone number is **(703) 305-0754**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Jay Patel**, can be reached at **(703) 308-7728**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Sam K. Ahn
7/25/04


YOUNG T. TSE
PRIMARY EXAMINER